

In the Claims

What is claimed is:

1. (currently amended) An electrochemical gas sensor, comprising:
a first cell in communication with a second cell;
each cell having:
a first substrate having a first-surface;
a first-sensing electrode and a first-counter electrode being spaced apart part
from one another and deposited on said first-surface;
an a first-electrolytic film material having a first-thickness and being in contact
with said first-sensing electrode for carrying a flow of ions;
an electrolytic material extending from said sensing electrode to said counter
electrode;
a reservoir in contact with said electrolytic material on a side opposite of said
substrate; and
a solution in said reservoir for hydrating said electrolytic material
~~— a second-substrate having a second-surface;~~
~~a second-sensing electrode and a second-counter electrode being spaced apart from~~
~~one another and deposited on said second-surface;~~
~~— a second-electrolytic material having a second-thickness and being in contact~~
~~with said second-sensing electrode for carrying a flow of ions; and~~
~~— said second-thickness being greater than said first-thickness.~~
2. (currently amended) The electrochemical gas sensor according to claim 1,
wherein said substrates of said first and said-second cells substrates are combined.

3. (currently amended) The electrochemical gas sensor according to claim 1, wherein said first and second cells further include including a first-reference electrode in contact with said first-electrolytic material and being spaced apart from said first-sensing and said first-counter electrodes.

4. (cancelled).

5. (original) The electrochemical gas sensor according to claim 1, wherein said first and said second sensing electrodes are the same material.

6. (original) The electrochemical gas sensor according to claim 1, wherein said first and said second sensing electrodes are different materials.

7. (cancelled).

8. (cancelled).

9. (currently amended) An electrochemical gas sensor, comprising:
a first cell in communication with a second cell;
each cell having:
a first-substrate having a first-surface;
a first-sensing electrode and a first-counter electrode being spaced apart from one another and deposited on said first-surface;
an electrolytic material extending from said sensing electrode to said counter electrode;
a reservoir in contact with said electrolytic material on a side opposite of said substrate;

~~_____ a solution in said reservoir for hydrating said electrolytic material; and~~
~~_____ a second substrate having a second surface;~~
~~_____ a second sensing electrode and a second counter electrode being spaced apart from one another and deposited on said second surface; and~~
said first sensing electrode of said first cell being of a material that is more sensitive to detecting a gas than a material of said sensing second electrode of said second cell.

10. (currently amended) The electrochemical gas sensor according to claim 9, wherein said ~~second-sensing electrode~~ of said second cell includes a material inert to a gas.

11. (currently amended) The electrochemical gas sensor according to claim 9, wherein ~~herein-said second-sensing electrode~~ includes gold~~Gold~~.

12. (cancelled).

13. (cancelled).

14. (currently amended) The electrochemical gas sensor according to claim 9, wherein said first and second cells further include ~~including a first-reference electrode~~ being spaced apart from said first-sensing and ~~said first-counter~~ electrodes.

15. (cancelled).

16. (original) An electrochemical gas sensor comprising:
a substrate having a surface;

a counter and reference electrode being deposited on said surface;

a first sensing electrode and a second sensing electrode, being spaced apart from one another and from said counter and reference electrode, being deposited on said surface;

a first electrolytic material having a first thickness and being in contact with said first sensing electrode for carrying a flow of ions;

a second electrolytic material having a second thickness and being in contact with said second sensing electrode for carrying a flow of ions; and

said second thickness being greater than said first thickness.